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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,840	09/09/2003	Ralph R. Dammel	2003US301/CIP	3016

7590

09/13/2005

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Somerville, NJ 08876

EXAMINER

CHU, JOHN S Y

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/658,840

Applicant(s)

DAMMEL ET AL.

Examiner

John S. Chu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 7-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2, 7-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper, No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the amendment received June 30, 2005.

1. The rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is **withdrawn** in view of the amendment by applicants.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

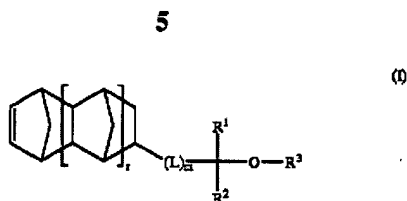
5. Claims 2, and 7-17 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by, as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over ITO et al '219.

The claimed invention is now drawn to the following:

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2(currently amended). ~~The A composition comprising a photoacid generator and a fluorinated polymer according to claim 1, where the fluorinated polymer comprising the unit of structure 4 is a reaction product of polymer containing an aliphatic monocyclic fluoroalcohol unit with a at least one compound capable of functionalizing the fluoroalcohol unit with an alkyloxycarbonylalkyl group of structure $-(CR_3R_4)_p(CO)OR_5$, where R_3 and R_4 are independently H, F, (C_1-C_8) alkyl, (C_1-C_8) fluoroalkyl, cycloalkyl, cyclofluoroalkyl, $(CR_3R_4)_p(CO)OR_5$, R_3 and R_4 may combine to form an alkylspirocyclic or a fluoroalkylspirocyclic group, R_5 is H or an acid labile group, and $p=1-4$.~~

ITO et al discloses a chemically amplified photoresist composition comprising the following teaching in column 5, lines 1-17:



wherein m is zero or 1, r is zero or 1, L is an alkylene or oxyalkylene linking group, R^1 is linear or branched fluoroalkyl, R^2 is linear or branched alkyl or fluoroalkyl, and R^3 is hydrogen, alkyl (preferably lower alkyl), $-C(O)-R$, $-CH_2-C(O)OR$, $-C(O)OR$ or $Si(R)_3$, wherein R is alkyl, preferably lower alkyl (e.g., R^3 may be $-C(O)OC(CH_3)_3$, $-CH_2C(O)OC(CH_3)_3$, $-C(O)CH_3$, or $-Si(CH_3)_3$), and at least one additional monomer having the structure (II)

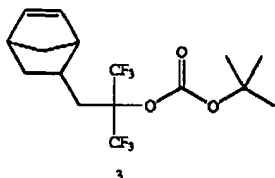
wherein this structure anticipates the claimed invention

having the claimed unit of structure 1.

Applicants are further directed to Example 5 in column

15, line 42 – column 16, et seq. wherein the following monomer is made:

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This monomer is used to prepare a polymer as disclosed in claims of ITO et al. In addition the copolymer made in ITO et al is used in composition comprising an acid generator, see claim 24, column 19, line 63 – column 20, line 29.

Alternatively, it would have been *prima facie* obvious to one of ordinary skill in the art of photoresist compositions to select the preferred side group as recited in column 15, line 16 as seen here: $-\text{CH}_2\text{C}(\text{O})\text{OC}(\text{CH}_3)_3$, $-\text{C}(\text{O})\text{CH}_3$, and reasonably expect same or similar results with respect to transparency in deep UV light.

Here the arguments by applicant have been carefully considered, as well as the amendment to claim 2. The novelty as argued by applicant is based on the monocyclic structure as now claimed in claim 2 wherein the norbornene structure is seen as a multicyclic ring. To the contrary, the examiner notes that the precursor as seen above to the norbornene structure upon polymerization upon ring opening can form a monocyclic structure or if polymerized by addition polymerization gives a multicyclic ring structure. Based on the alternative polymerization processes which can be performed on the ring, if a ring opening structure is formed the polymer anticipates the recited monocyclic structure of claim 2.

The rejection is repeated.

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Chu whose telephone number is (571) 272-1329. The examiner can normally be reached on Monday - Friday from 9:30 am to 6:00 pm.

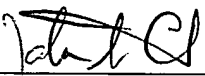
The fax phone number for the USPTO is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John S. Chu
Primary Examiner, Group 1700

J.Chu
September 2, 2005